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# THE AGARICACEAE OF THE PACIFIC COAST—III

WILLIAM A. MURRILL

(WITH PLATE 77, CONTAINING 2 FIGURES)

The species here treated have brown or black spores. Some of them are celebrated for their edible qualities. No dangerously poisonous species are known to belong to this group, although many of them have not been tested.

Spores brown.

Annulus present.

Lamellae free.

1. AGARICUS.

Lamellae adnate.

2. STROPHARIA.

Annulus absent; veil appendiculate.

Scattered or subcespitose, rarely densely cespitose;  
surface hygrophanous, viscid, or squamulose.

3. DROSOPHILA.

Densely cespitose; surface firm, dry, glabrous.

4. HYPHOLOMA.

Spores black or olivaceous.

5. GOMPHIDIUS.

1. AGARICUS (Dill.) L. Sp. Pl. 1171. 1753

1. AGARICUS CAMPESTRIS L. Sp. Pl. 1173. 1753

Seattle, Washington, *Zeller 109*; Golden Gate Park, California, *Murrill 1114*; La Honda, California, *Murrill & Abrams 1251, 1277*; Stanford University, California, *Nohara 2, Miss Patterson 17, Baker 130*; California, *Harper*; Kadiak, Alaska, *Trelease 504*.

2. AGARICUS CALIFORNICUS Peck, Bull. Torrey Club 22: 203.  
1895

Pileus at first subconic, becoming convex, minutely silky or fibrillose, whitish, tinged with purple or brownish-purple on the disk; flesh whitish; lamellae close, free, pink becoming purplish, then blackish-brown; stem rather long, solid or stuffed, equal or tapering upward, distinctly and rather abruptly narrowed above the entire, externally silky annulus, pallid or brownish; spores broadly ellipsoid,  $5-6 \times 4-5 \mu$ .

Pileus 2.5-7.5 cm. broad; stem 4-7.5 cm. long, 4-8 mm. thick.

Type collected by McClatchie under oak trees near Pasadena, California. Said by the author to resemble *A. haemorrhoidarius* in size, shape, and habitat, but to differ in color and surface adornment. According to Baker, it is abundant and much collected for food in pastures and lawns about Stanford University.

Pasadena, California, *McClatchie*; Stanford University, California, *Baker 123*, *Dudley 179*, *Nohara 39*; Searsville, California, *W. G. Johnston*.

3. AGARICUS HAEMORRHOIDARIUS Fries, Hymen. Eur. 281.  
1872

Berkeley Camp, California, *Harper*. The specimens were determined as above by Professor Harper when collected. They also agree with plants at Albany so determined by Dr. Peck.

4. AGARICUS SILVICOLA Sacc. Syll. Fung. 5: 998. 1887  
*Agaricus campestris silvicola* Vitt. Fung. Mang. 43. 1835.  
*Agaricus bulbosus* McClatchie, Proc. S. Cal. Acad. Sci. 1: 382.  
1897.

This species was found commonly in woods. The spores are rather small, measuring  $5 \times 3.5 \mu$ .

Seattle, Washington, *Murrill 231*, *281*, *478*, *581*, *Zeller 106*; Stanford University, California, *McMurphy 133*, *Miss Patterson 3*, *33*.

5. AGARICUS PLACOMYCES Peck, Ann. Rep. N. Y. State Mus.  
29: 40. 1878

Seattle, Washington, *Murrill 285*, *524*; Muir Woods, California, *Murrill 1130*. The specimen from Muir Woods was avelaneous-umbrinous at the center, becoming blackish on drying, and the stipe below the annulus was prominently marked with close, concentric, irregular ridges.

6. AGARICUS SILVATICUS Schaeff. Fung. Bav. 62. 1800

Tacoma, Washington, *Murrill 722*: surface densely covered with large reddish-brown scales; spores ellipsoid,  $6 \times 3.5 \mu$ .

Searsville Lake, California, *McMurphy 115*: scales more broken into fibrils and color somewhat darker, but otherwise like the Washington plants.

7. *AGARICUS PATTERSONAE* Peck, Bull. Torrey Club **34**: 347.

1907

Pileus fleshy, firm, convex or nearly plane, glabrous or minutely silky, white or whitish, often mottled with brownish squamules; flesh firm, white, taste fungoid; lamellae close, free, pink, becoming blackish-brown or black with age; stem equal or slightly tapering upward, firm, stuffed, bulbous, white or whitish, the annulus white, often rupturing and partly adhering to the margin of the pileus; spores broadly ellipsoid,  $8-9\mu$  long,  $5-6\mu$  broad.

Pileus 6-14 cm. broad; stem 7-12 cm. long, 2-3 cm. thick.

Described from specimens collected by Miss Patterson under pine and cypress trees at Stanford University, California. The types at Albany are in poor condition, but the photograph accompanying them shows imbricated fibrils and scales over the surface similar to those of the dark form of *A. campestris*, to which it seems closely related.

Stanford University, California, *Miss Patterson 18*.

8. *Agaricus hondensis* sp. nov.

Pileus convex to plane or somewhat depressed, solitary, 7 cm. broad; surface dry, smooth, glabrous, white to slightly purplish-black, the center concolorous; lamellae free, crowded, ventricose, at length fuliginous; spores ellipsoid, smooth, pale purplish-brown under a microscope,  $5 \times 2.5\mu$ ; stipe somewhat fusiform with a small bulb, dry, smooth, glabrous, white, 9 cm. long, 1 cm. thick at the center; annulus ample, simple, persistent, fixed, superior.

Type collected in sandy loam under redwoods at La Honda, California, November 25, 1911, *W. A. Murrill & L. R. Abrams 1260*.

9. *AGARICUS BIVELATUS* Peck, Bull. Torrey Club **36**: 335. 1909

Pileus fleshy, thin, broadly convex, radiately fibrillose and floccose, cream-colored slightly tinged with pink, smoky-brown in the center; lamellae thin, close, free, pink then seal-brown; stem

equal or slightly bulbous, glabrous, shining, white-floccose at the top, stuffed or hollow, cream-colored, with a narrow double annulus which at length disappears; spores subglobose,  $5-6\mu \times 4-5\mu$ .

Pileus 4-5 cm. broad; stem 3.5-6 cm. long, 8-11 mm. thick.

Described from specimens collected by Baker under oaks at Claremont, California.

10. *AGARICUS SUBNITENS* Peck, Bull. Torrey Club 36: 335.

1909

Pileus fleshy, broadly convex or slightly depressed in the center, densely fibrillose, shining on the margin, cream- or tan-colored; flesh white; lamellae thin, close, free, pink becoming dark-brown; stem equal or slightly thickened below, stuffed or hollow, white and fibrillose above, cream-colored and shining below with a finally deciduous brown but white-margined annulus; spores ellipsoid, purplish-brown,  $6-8\mu \times 4-5\mu$ .

Pileus 4.5-9.5 cm. broad; stem 8.5-13 cm. long, 1-1.5 cm. thick.

Described from specimens collected by Baker under oaks at Claremont, California. Apparently not sufficiently distinct from *A. bivelatus*.

11. *Agaricus bivelatoides* sp. nov.

Pileus truncate-conic to convex with a large umbo, not fully expanding, drying thin, 4 cm. broad; surface minutely imbricate-fibrillose, dry, uniformly pale-avellaneous throughout; lamellae free, crowded, ventricose, becoming fuliginous; spores ellipsoid, smooth, purplish-brown,  $5 \times 2.5\mu$ ; stipe enlarging below, with very small bulb, subconcolorous, minutely fibrillose, 6 cm. long, 4-6 mm. thick; annulus superior, simple, fixed, persistent, white.

Type collected on the ground under redwoods near Seattle, Washington, October 20-November 1, 1911, *W. A. Murrill* 493. Related to *A. bivelatus* Peck.

12. *Agaricus comptuloides* sp. nov.

Pileus small, thin, conic to convex, umbonate, solitary, 3 cm. broad; surface rosy-isabelline to whitish, pinkish-brown to fulvous on the umbo, dry, slightly fibrillose-scaly, margin entire, concolorous; lamellae free, crowded, plane, becoming fuliginous; spores ellipsoid, smooth, pale-purplish under a microscope,  $5 \times 2.5\mu$ ; stipe smooth, polished, enlarged and white below, pinkish

above, becoming yellowish throughout on drying, 7 cm. long, 4 mm. thick above, 8 mm. thick below; annulus white to yellow, membranous, ample, persistent, fixed just above the middle of the stipe.

Collected in humus on the ground in woods near Seattle, Washington, October 20–November 1, 1911, *W. A. Murrill* 434 (*type*), 523. Related to *A. comptulus* Fries and *A. diminutivus* Peck.

13. ***Agaricus flavitingens* sp. nov.**

Pileus hemispheric to broadly convex, not umbonate, drying thin, gregarious, 6 cm. broad; surface dry, smooth, imbricate-fibrillose-scaly, fulvous with a latericeous tint at the center, fading out to stramineous toward the margin; lamellae free, ventricose, not crowded, avellaneous to umbrinous; spores ovoid, smooth, purplish-brown,  $4-5 \times 3-4 \mu$ ; stipe cylindric, slightly larger at the base, smooth, glabrous, white above the annulus, ochraceous-tinted below, 5 cm. long, 1 cm. thick; annulus ample, membranous, persistent, fixed about the center of the stipe, white, changing to yellow on drying.

Type collected in sandy soil in fir woods near Seattle, Washington, October 20–November 1, 1911, *W. A. Murrill* 381.

14. ***Agaricus Hillii* sp. nov.**

Pileus regular, convex, thick and fleshy, solitary, 5–10 cm. broad; surface smooth, dry, subglabrous, white, slightly grayish-brown at the center, becoming pale-bay at the center on drying, margin thin, entire, decorated with fragments of the veil; context white to slightly pinkish, not changing, with pleasant taste and odor; lamellae free, crowded, broad, ventricose, pink to fuliginous; spores ellipsoid, smooth, purplish-brown under a microscope,  $5-6 \times 3.5 \mu$ ; stipe bulbous, tapering upward, smooth, glabrous, white, pinkish above the annulus, stuffed or hollow, 7–10 cm. long, 8–12 mm. thick; annulus superior, simple, white, large, persistent.

Type collected among moss and humus in open woods on Mayne Island, Gulf of Georgia, British Columbia, December 12, 1904, *Albert I. Hill* 104.

15. ***Agaricus Abramsii* sp. nov.**

Pileus irregular, owing to the position of the plant, thick, fleshy, plane, solitary, 6 cm. broad; surface dry, finely imbricate-

scaly, whitish with a rosy tint; lamellae free, crowded, narrow, plane, pallid; spores ovoid, smooth, hyaline to pale-umbrinous under a microscope,  $6-7 \times 3.5-4 \mu$ ; stipe eccentric, fusiform, white, polished, hollow,  $6 \times 2$  cm.; annulus near the base, white, not conspicuous.

Type collected on a clay bank by the roadside at 800 ft. elevation on the Santa Cruz Mountains near Palo Alto, California, November 25, 1911, *W. A. Murrill & L. R. Abrams 1227*. Distorted, owing to its position on the side of the bank.

#### 16. *Agaricus subrufescentoides* sp. nov.

Pileus convex to subexpanded, slightly umbonate, thick and fleshy, solitary, reaching 10 cm. broad; surface dry, smooth, whitish, densely covered with imbricate, delicately-fibrillose, rufescent scales, except at the center, where it is glabrous and fulvous to bay; lamellae free, rather close, ventricose, pallid to pale-purplish; spores narrowly ellipsoid, obliquely pointed at the base, smooth, pale purplish-brown,  $6-7 \times 3.5 \mu$ ; stipe tapering upward, not bulbous, glabrous, white, staining slightly reddish-brown when bruised, 7 cm. long, 1-1.5 cm. thick; annulus ample, membranous, simple, white, staining slightly reddish-brown, fixed, superior.

Type collected on the ground in woods near Seattle, Washington, October 20-November 1, 1911, *W. A. Murrill 591*. Also collected near Tacoma, Washington, October 26, 1911, *W. A. Murrill 720*.

#### 17. *Agaricus McMurphyi* sp. nov.

Pileus rather thick and fleshy, convex to expanded, solitary, 15 cm. broad; surface moist, smooth, light-gray with purplish-brown fibrils, margin somewhat ragged with portions of the veil; context white, not changing when bruised, with taste and odor similar to that of *A. campestris*; lamellae free, several times inserted, rather broad, ventricose, crowded, becoming very dark brown; spores ellipsoid, smooth, dark-purplish under a microscope,  $5-6 \times 3-3.5 \mu$ ; stipe subequal with a prominent bulb, subglabrous, stuffed, whitish below to purplish-brown above, 13 cm. long, 2 mm. thick; veil thin, membranous, leaving a permanent, median annulus.

Type collected on the ground under redwoods near Searsville Lake, California, January 6, 1903, *James McMurphy 35*.

18. *Agaricus crocodilinus* sp. nov.

Pileus thick, convex, not fully expanding, solitary, reaching 35 cm. broad; surface white, conspicuously ornamented with large gemmate warts originating from the cracking of the epidermis, causing it to resemble the skin of a crocodile; lamellae broad, ventricose, crowded, narrowed behind; spores ellipsoid, obliquely pointed at the base, smooth, uniguttulate, dark purplish-brown,  $11-13 \times 6-7 \mu$ ; stipe short, white, smooth, glabrous,  $12 \times 6$  cm., very much inflated at the center, where it reaches 9 cm. or more thick; veil superior, white, membranous. (*pl.* 77.)

Type collected on the ground at Ferndale, Humboldt Co., California, by H. J. Smith, who tested it and found it edible.

## 2. STROPHARIA (Fries) Quél. Champ. Jura Vosg. 110. 1872

1. STROPHARIA AERUGINOSA (Curt.) Quél. Champ. Jura Vosg.  
110. 1872

California, *Harper* 7; Stanford University, California, *McMurphy* 151.

2. STROPHARIA SEMIGLOBATA (Batsch) Quél. Champ. Jura Vosg.  
112. 1872

See MYCOLOGIA for January, 1912, where this species is described and illustrated in color.

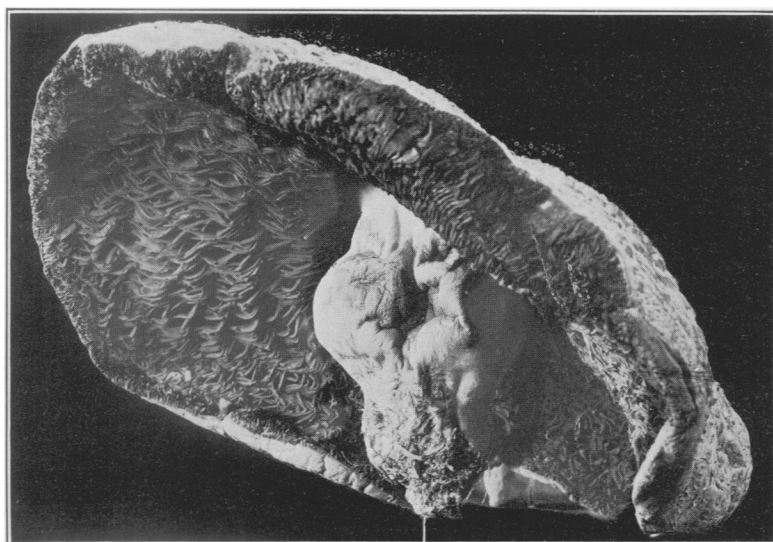
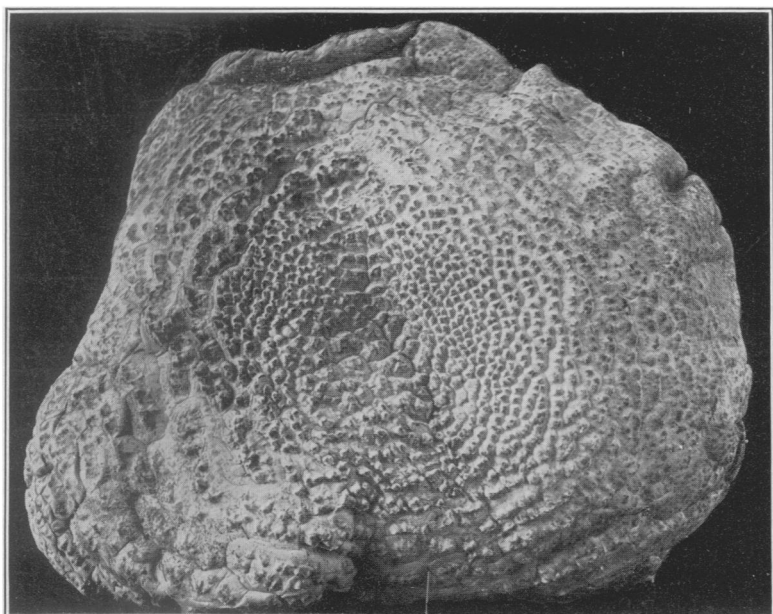
Tacoma Prairies, Washington, *Murrill* 713; Corvallis, Oregon, *Murrill* 970, 973, 997; Stanford University, California, *Dudley* 184, *Miss Kidwell* 95, *McMurphy* 112; Searsville Lake, California, *McMurphy* 98.

3. STROPHARIA STERCORARIA (Fries) Quél. Champ. Jura Vosg.  
112. 1872

Similar to *S. semiglobata* in habit and appearance, but gills becoming brownish-black or greenish-black instead of cloudy-black, and spores larger and lighter in color, appearing olivaceous under a microscope. The spores of both species are immense and vary considerably in size.

Stanford University, California, *Miss Patterson* 15, 30, 40,





AGARICUS CROCODILINUS MURRILL

*Dudley 75, Nohara 40, Abrams 200*; near Palo Alto, California, *Baker 377*; Berkeley, California, *Harper*; near Searsville Lake, California, *McMurphy 47*.

4. *STROPHARIA MAGNIVELARIS* Peck; Harriman Alaska Exped.  
Crypt. 44. 1904

Pileus convex, becoming nearly plane, sometimes umbonate, glabrous or obscurely radiately fibrillose or fibrillose-squamose with innate or appressed fibrils, ochraceous-buff when dry; lamellae moderately close, blackish-brown when mature; stems long, slender, glabrous, solid, slightly thickened at the base, whitish, the ring large, membranous, white, persistent; spores ellipsoid-oblong,  $14-16\mu$  long,  $7-8\mu$  broad.

Pileus 2-3 cm. broad; stem 5-7 cm. long, 2-4 mm. thick.

Described from specimens collected on the ground at Yakutat Bay, Alaska, *Trelease 501, 503*. The types at Albany resemble *S. stercoraria*, but have a larger ring, darker gills, and a more radiate-rugose or subsquamose cap.

5. *Stropharia semigloboides* sp. nov.

Pileus convex, thin, solitary, 1.5 cm. broad; surface smooth, glabrous, shining, somewhat viscid when young, creameous, ochraceous at the center; lamellae adnate, plane, distant, pale-grayish to fumous, the edges white; spores oblong-ellipsoid, smooth, 2-guttulate, subhyaline with a faint yellowish-brown tint under a microscope,  $8 \times 4\mu$ ; stipe radicate, tapering upward, smooth, glabrous, white, slightly tinted with yellow at the base, 10 cm. long, including the root, 5-8 mm. thick; veil ample, white, fixed, persistent, fimbriate at the margin, colored above with the purplish spores.

Type collected among leaves in woods near Seattle, Washington, October 20-November 1, 1911, *W. A. Murrill 435*. Resembling *Stropharia semiglobata*, but differing in habitat, with much paler gills and different spore characters.

6. *Stropharia longistriata* sp. nov.

Pileus conic to convex, more or less umbonate, thin, gregarious, 2.5-5 cm. broad; surface hygrophanous, glabrous, radiate-rugose, isabelline to dark-cream on the umbo, whitish to dull-brown on the long-striate margin; lamellae adnate, narrow, plane, not

crowded, often whitish on the edge, pallid to purplish-brown; spores ellipsoid, smooth, 1-2-guttulate, pale-purplish under a microscope,  $7 \times 3.5 \mu$ ; stipe milk-white throughout, smooth, glabrous, tapering upward, hollow, about 6 cm. long and 5 mm. thick; annulus very large, persistent, median, fixed, funnel-shaped.

Collected in abundance on rich earth and decayed chips in an opening in woods near Seattle, Washington, October 20-November 1, 1911, *W. A. Murrill* 233 (type), 527, 604, *Zeller* 89, 122. Also collected on the ground among dead sticks in woods at Newport, Oregon, *W. A. Murrill* 1074. Similar to *Hypholoma appendiculatum* in general appearance, but always furnished with a conspicuous, persistent annulus.

7. STROPHARIA BILAMELLATA Peck, Bull. Torrey Club 22: 204. 1895

Pileus fleshy, convex, even, whitish or yellowish, flesh pure-white; lamellae close, adnate, purplish-brown when mature; stem short, solid, white, with a well-developed pure-white annulus which is striately lamellate on the upper surface; spores ellipsoid, purplish-brown,  $10 \times 5-6 \mu$ .

Pileus 2.5-5 cm. broad; stem about 2.5 cm. long, 6-8 mm. thick.

Described from specimens collected by McClatchie (840) in grass on the streets of Pasadena, California. With the types at Albany, are specimens collected by Braendle at Washington, D. C., which appear to be identical.

3. DROSOPHILA Quél. Ench. Fung. 115. 1886

It seems best to separate the genus *Hypholoma* as ordinarily known into two groups, one containing the densely cespitose species, such as *H. sublateritium*, which form a natural group, and the other containing *H. appendiculatum*, *H. lacrymabundum*, and their relatives.

1. DROSOPHILA APPENDICULATA Quél. Ench. Fung. 116. 1886

*Hypholoma appendiculatum* (Bull.) Quél. Champ. Jura Vosg. 115. 1872.

*Hypholoma cutifractum* Peck, Bull. Torrey Club 22: 490. 1895.

*Hypholoma flocculentum* McClatchie Proc. S. Cal. Acad. Sci. 1: 381. 1897.

Described and figured in MYCOLOGIA for January, 1912. A very abundant and widely distributed edible species.

California, *Miss Patterson, H. S. Fawcett, McClatchie, Baker.*

## 2. *Drosophila atrofolia* (Peck)

*Hypholoma atrofolium* Peck, Bull. Torrey Club 23: 417. 1896.

Pileus submembranous, at first convex or hemispheric, then broadly convex, commonly umbonate, minutely and irregularly furrowed, striate to the apex when mature, hygrophanous, burnt-umber or wood-brown when moist, fading to pale-tawny or cream color in drying, veil fugacious; lamellae subdistant, adnate, at first pale-brown or drab, then dark seal-brown, almost black; stem slender, fibrillose, hollow, pallid or cream color; spores very dark brown, ellipsoid,  $10 \times 5 \mu$ ; pileus 18–48 mm. broad; stem 2.5–6 cm. long, 2–3 mm. thick.

Described from plants collected by McClatchie among bushes at Pasadena, California. At Albany, specimens from California collected by Copeland and also from Ohio collected by Lloyd bear this name. The gills of the type are almost black when mature, suggesting *Psathyrella*, but its relationships are nearer *Hypholoma*, according to the author.

## 3. *Drosophila longipes* (Peck)

*Hypholoma longipes* Peck, Bull. Torrey Club 22: 204. 1895.

Pileus thin, campanulate, even or obscurely striate on the margin, fibrillose becoming glabrous, hygrophanous, yellowish-brown when moist, brown or isabelline-brown when dry, the margin appendiculate with the very white, floccose, fugacious veil; lamellae narrow, close, adnate, white or whitish, becoming nearly black, often whitish on the edge; stem slender, long, hollow, striate at the top, white, with a mycelioid tomentum at the base; spores ellipsoid,  $12.5 \times 7.5 \mu$ .

Pileus 2.5–3 cm. broad; stem 5–12.5 cm. long, 2–5 mm. thick.

Described from specimens collected by McClatchie in very wet weather among fallen leaves near Pasadena, California. Very thin and fragile, with stipe hollow to the very apex. Specimens at Albany from California sent to Dr. Peck by Miss Patterson in 1907 are incorrectly referred to this species.

#### 4. *Drosophila campanulata* (Peck)

*Hypholoma campanulatum* Peck, Bull. Torrey Club **36**: 336. 1909.

Pileus thin, campanulate, dry, somewhat shining, glabrous, sometimes slightly appendiculate with fragments of the white veil, ochraceous; lamellae thin, close, nearly free, pale-brown becoming dark-brown, whitish on the edge; stem long, equal, glabrous, hollow, white or cream-colored with a soft white tomentum at the base; spores blackish-brown, ellipsoid-oblong,  $8-10 \times 4-5 \mu$ .

Pileus 3-4 cm. broad; stem 8-13 cm. long, 4-7 mm. thick.

Described from specimens collected by Baker in open ground among shrubs, grass, and weeds, at Claremont, California. Probably too closely related to *H. longipes* Peck, according to specimens examined at Albany.

#### 5. *Drosophila californica* (Earle)

*Hypholoma californicum* Earle, Bull. N. Y. Bot. Gard. **2**: 344. 1902.

Densely cespitose on or near the base of oak stumps; pileus thin, 5-5.5 cm., convex, then expanded and subumbonate, deep rich-brown, smooth, hygrophanous, margin entire (or obscurely striate in dried specimens); lamellae adnexed or subfree, subcrowded, slightly ventricose, pale-brown at first then darker; spores dark purplish-brown, oblong-ellipsoid,  $5-6 \times 3 \mu$ ; veil white, of thin fibers soon breaking away from the stem but more closely woven toward the margin, appendiculate; stalk 7-10 cm.  $\times 4-5$  mm., equal, glabrous but uneven with small irregular swellings, sordid-white marked with brownish stains on drying, hollow, cartilaginous, fragile, often splitting; flesh thin, pale-brownish, unchanging, taste and smell mild (normal agaric).

Described from specimens collected on the summit of the Coast Range, near Palo Alto, California, *Baker 86*. Related to *H. longipes* Peck, but larger, with ventricose gills and smaller spores.

#### 6. *Drosophila ambigua* (Peck)

*Hypholoma ambiguum* Peck, Bull. Torrey Club **25**: 325. 1898.

Pileus thin, convex, becoming nearly plane, glabrous, subviscid when moist, straw color inclining to pale-orange, the mar-

gin in immature plants appendiculate with the remains of the white, thick veil which in very young plants conceals the lamellae, but which in mature ones wholly disappears; flesh white; lamellae close, adnexed, grayish at first, changing to dark-brown where wounded, becoming blackish-brown with age; stem slender, equal, stuffed or hollow, squamose near the base, paler than the pileus; spores ellipsoid,  $12.5-15 \times 7.5 \mu$ .

Pileus 5-13 cm. broad; stem 12-22 cm. long.

Described from specimens collected by Lane in fir woods near Portland, Oregon, in November. The species belongs naturally in *Stropharia*, but the large veil is entirely appendiculate and leaves no annulus. It is one of the most striking and abundant gill-fungi on the Coast.

Seattle, Washington, *Murrill* 245, 594, 649, *Zeller* 91; Mill City, Oregon, *Murrill* 868; Corvallis, Oregon, *Murrill* 929; Salem, Oregon, *M. E. Peck*; Muir Woods, California, *Murrill* 1131; La Honda, California, *Murrill & Abrams* 1272; Searsville Lake, California, *McMurphy* 92, 117.

#### 4. HYPHOLOMA (Fries) Quél. Champ. Jura Vosg. 112. 1872

Most of the collections cited under the two species listed below are without notes, and microscopic characters are of little assistance here. Persons using these specimens for comparison are therefore advised to do so with caution, depending rather upon fresh material and good descriptions.

##### 1. HYPHOLOMA CAPNOIDES (Fries) Sacc. Syll. Fung. 5: 1028. 1887

This species is rare on the Coast. It differs from *H. fasciculare* in having smoky-blue to purplish-brown gills and a mild taste. It is not credited with having cystidia, nor occurring on deciduous wood.

Seattle, Washington, *Murrill* 473, 521, 687; Salem, Oregon, *M. E. Peck*; Muir Woods, California, *Murrill* 1128.

2. *HYPHOLOMA FASCICULARE* (Huds.) Quél. Champ. Jura Vosg.  
113. 1872

This species occurs in the greatest profusion on dead wood of all kinds. The gills are sulfur-yellow to greenish and at length purplish-brown with a greenish tint. The flesh is yellow and intensely bitter, according to descriptions. The spores are ellipsoid, smooth, pale-yellow, becoming purplish-brown,  $6-7 \times 4 \mu$ , and cystidia are said to be present, measuring  $40-50 \times 10-12 \mu$ .

Seattle, Washington, *Murrill 429, 501, Zeller 92*; Corvallis, Oregon, *Murrill 886*; Salem, Oregon, *M. E. Peck*; Golden Gate Park, San Francisco, California, *Miss Eastwood 14, 15*; Marin County, California, *Miss Eastwood 11*; Mt. Tamalpais, Marin County, California, *Miss Eastwood 33*; Berkeley, California, *Harper 20*; Sutro Woods, California, *Harper 59*; California, *Harper*; Searsville Lake, California, *McMurphy 32*; Stanford University, California, *McMurphy 155*; Monterey, California, *Dudley 125*; Santa Cruz, California, *G. J. Streator*; Santa Cruz Mountains, California, *Dudley 108*.

5. *GOMPHIDIUS* Fries, Gen. Hymen. 8. 1836

1. *GOMPHIDIUS OREGONENSIS* Peck, Bull. Torrey Club 25: 326.  
1898

Pileus at first convex, becoming nearly plane or somewhat centrally depressed, viscid, brown or dark-brown, becoming black in drying, taste sweet and pleasant; lamellae numerous, rather close, adnate or slightly decurrent, blackish in the dried plant; stem short, solid, equal or slightly tapering upward, colored like the pileus; spores oblong,  $10-12.5 \mu$  long,  $4-5 \mu$  broad.

Pileus 5-10 cm. broad; stem 2.5-5 cm. long, 4-10 mm. thick.

Described from specimens collected by Dr. H. Lane in fir woods in Oregon. According to Dr. Lane, it grows there by the wagon load and is edible. I found it common both in Washington and Oregon. Baker states that the gills are brightly phosphorescent. The spores are translucent with a blackish tint under a microscope and measure  $11-13 \times 3.5-4.5 \mu$ , while in the very closely related *G. nigricans*, described by Peck from New York in 1896, the spores are  $15-25 \times 6-7.5 \mu$ .

Seattle, Washington, *Murrill* 255, 324, 500, 682; Tacoma Prairies, Washington, *Murrill* 706; Corvallis, Oregon, *Murrill* 968; La Honda, California, *Murrill & Abrams* 1242; Stanford University, California, *Baker* 155; Santa Cruz, California, *G. J. Streater*; Berkeley, California, *Harper* 22.

2. *GOMPHIDIUS VINICOLOR* Peck, Ann. Rep. N. Y. State Mus.  
51: 291. 1898

Pileus thick, fleshy, convex or nearly plane, viscid, dark-red, becoming blackish in drying; lamellae distant, decurrent, olive-brown or blackish when mature, stem subequal, glabrous, solid, vinous-red, paler within; spores oblong-fusiform,  $12-14 \times 3.5-4 \mu$ .

Pileus 2.5-6 cm. broad; stem 3-6 cm. long. 4-8 mm. thick.

Described from specimens collected under pine trees at Lake Mohonk, New York. The western plants are larger and have spores measuring about  $17.5 \times 5 \mu$ . The spore print is olivaceous, while under a microscope the spores are translucent with olivaceous tints.

Stanford University, California, *McMurphy* III, *Dudley* 166; Golden Gate Park, San Francisco, California, *Miss Eastwood* 17, 20, *Murrill* 1107; Berkeley, California, *W. C. Blasdale*, *M. A. Howe*, *Harper* 54.

3. *Gomphidius tomentosus* sp. nov.

Pileus convex to slightly depressed, gregarious to subcespitose, reaching 6 cm. broad; surface dry, conspicuously cottony-tomentose, ochraceous, discolored-ochraceous to avellaneous at the center, becoming yellowish-brown or pinkish-brown on drying, margin concolorous, incurved, conspicuously decorated with tomentum similar to that on the surface and also with a portion of the fibrillose veil; context ochraceous, becoming reddish-tinted on drying, sweetish to the taste, odor agreeable; lamellae decurrent, distant, inserted, forked at times, rather thick and entire on the edge; spores oblong-fusiform, smooth, translucent or opaque, olivaceous under a microscope,  $17.5-21 \times 7-9 \mu$ ; stipe similar to the pileus in color and tomentum, inclined to be fusiform in shape, solid, ochraceous within, 8 cm. long, 1.5 cm. thick, with a cushion of long, fibrillose-tomentose hairs, instead of the usual form of annulus.



Type collected on a mossy bank in low woods near Seattle, Washington, October 20–November 1, 1911, *W. A. Murrill* 330. Also collected at the same time by *S. M. Zeller* 10, and by an unknown collector in 1906 on clay soil near Seaside, Oregon. It is an anomalous species, not suggesting *Gomphidius* when first seen, but it has several characters in common with *G. vinicolor*, including the very characteristic spores.

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